



Replacement Sheet

SEQUENCE LISTING -- TAX [Bovine leukemia virus]

LOCUS AAF97920 309 aa
ACCESSION AAF97920

NUCLEOTIDE SEQUENCE (SEQ ID NO:2):

ATG GCA AGT GTT GTT GGT TGG GGG CCC CAC TCT CTA CAT GCC TGC CCG
GCC CTG GTT TTG TCC AAT GAC GTC ACC ATC GAT GCC TGG TGC CCC CTC
TGC GGG CCC CAT GAG CGA CTC CAA TTC GAA AGG ATC GAC ACC ACG CAC
ACC TGC GAG ACC CAC CGT ATC ACC TGG ACC GCC GAT GGA CGA CCT TTC
GGC CTC AAT GGA GCG CTG TTC CCT CGA CTG CAT GTC TCC AGA GAC CCG
GCC CCA AGG GCC CGA CGA CTC TGG ATC AAC TGC CCC CTT CCG GCC GTT
CGC GCT CAG CCC GGC CCG GTT TCA CTT TCC CCC TTC GAG CGG TCC CCC
TTC CAG CCC TAC CAA TGC CAA TTG CCC TCG GCC TCT AGC GAC GGT TGC
CCC GTC ATC GGG CAC GGC CTT CTT CCC TGG AAC AAC TTA GTA ACG CAT
CCT TGT CCT CGG AAA GTC CTT ATA TTA AAT CAA ATG GCC AAT TTT TCC
TTA CTC CCC CCC TTC AAT ACC CTC CTT GTG GAC CCC CTC CGG TTG TCC
GTC TTT GCC CCA GAC ACC AGG GGA GCC ATA CGT TAT CTC TCC ACC CTT
TTG ACG CTA TGC CCA GCT ACT TGT ATT CTA CCC CTC GGC GA GCC CTT
CTC TCC TAA TGT CCC CAT ATG TCG CTT TCC CCG GGA CTC CAA TGA ACC
CCC CCT TTC AGA ATT CGA GCT GCC CCT TAT CCA AAC GCC CGG CCT GTC
TTG GTC TGT CCC CGC GAT CGA CCT ATT CCT AAC CGG CCC CCC TTC CCC
ATG CGA CCG GTT ACA CGT ATG GTC CAG TCC TCA GGC CTT ACA GCG CTT
CCT CCA TGA CCC TAC GCT AAC CTG GTC AGA ATT GGT TGC TAG CAG GAA
ACT AAG ACT TGA TTC ACC CTT AAA ATT ACA ACT GTT AGA AAA TGA ATG
GCT CTC CCG CCT TTT TTG

PROTEIN SEQUENCE (SEQ ID NO:3)

MASVVGWGPHSLHACPALVLSNDVTIDAWCPLCGPHERLQFERIDTTHTCETHRITW
TADGRPFGLNGALFPRLHVSRDPAPRARRLWINCPLPAVRAQPGPVSLSPFERSPF
QPYQCQLPSASSDGCPVIGHGLLPWNNLVTHPCPRKVLILNQMANFSLLPPFNTLLV
DPLRLSVFAPDTRGAIYLSTLLTLCPATCILPLGEPFSPNVPICRFPRDSNEPPLSEF
ELPLIQTPGLSWSPVAIDLFLTGPPSPCDRLHVWSSPQALQRFLHDPTLTW
SELVASRKLR LDSPLKLQLLENEWLSRLF

FIG. 3

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SEQUENCE LISTING -- HTLV-1 Promoter sequence (SEQ ID NO:6)

1 TGACAATGAC CATGAGCCCC AAATATCCCC CGGGGGCTTA GAGCCTCTCA CTGAAAAACA
61 TTTCCGTGAA ACAGAAGTCT GAGAAGGTCA GGGCCCAGAA TAAGGCTCTG ACGTCTCCCC
121 CCGGAGGAACA GCTCAGCACC AGCTCAGGCT AGGCCCTGAC GTGTCCCCCT AAAGACAAAT
181 CATAAGCTCA GACCTCCGGG AAGCCACCGG GAACCAACCA TTTCCCTCCCC ATGTTTGTC
241 AGCCGTCCCTC AGGCCTTGAC GACAACCCCT CACCTCAAAA AACTTTTCAT GGCAACGCATA
301 CGGCTCAATA AAATAACAGG AGTCTATAAA AGCGTGGGGA CAGTTCAGGA GGG

FIG. 4

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**SEQUENCE LISTING -- HTLV1 Tax Nucleic Acid (SEQ ID NO:4) and
Protein sequence (SEQ ID NO:5)**

1	ATG GCC CAC TTC CCA GGG TTT GGA CAG AGT CTT CTT TTC GGA TAC	45
1	Met Ala His Phe Pro Gly Phe Gly Gln Ser Leu Leu Phe Gly Tyr	15
46	CCA GTC TAC GTG TTT GGA GAC TGT GTA CAA GGC GAC TGG TGC CCC	90
16	Pro Val Tyr Val Phe Gly Asp Cys Val Gln Gly Asp Trp Cys Pro	30
91	ATC TCT GGG GGA CTA TCT TCG GCC CGC CTA CAT CGT CAC GCC CTA	135
31	Ile Ser Gly Gly Leu Cys Ser Ala Arg Leu His Arg His Ala Leu	45
136	CTG GCC ACC TGT CCA GAG CAT CAG ATC ACC TGG GAC CCC ATT GAT	180
46	Leu Ala Thr Cys Pro Glu His Gln Ile Thr Trp Asp Pro Ile Asp	60
181	GGA CGC GTT ATC GCC TCA GCT CTA CAG TTC CTT ATC CCT CGA CTC	225
61	Gly Arg Val Ile Gly Ser Ala Leu Gln Phe Leu Ile Pro Arg Leu	75
226	CCC TCC TTC CCC ACC CAG AGA ACC TCT AAG ACC CTC AAG GTC CTT	270
76	Pro Ser Phe Pro Thr Gln Arg Thr Ser Lys Thr Leu Lys Val Leu	90
271	ACC CCG CCA ATC ACT CAT ACA ACC CCC AAC ATT CCA CCC TCC TTC	315
91	Thr Pro Pro Ile Thr His Thr Thr Pro Asn Ile Pro Pro Ser Phe	105
316	CTC CAG GCC ATG CGC AAA TAC TCC CCC TTC CGA AAT GGA TAC ATG	360
106	Leu Gln Ala Met Arg Lys Tyr Ser Pro Phe Arg Asn Gly Tyr Met	120
361	GAA CCC ACC CTT GGG CAG CAC CTC CCA ACC CTG TCT TTT CCA GAC	405
121	Glu Pro Thr Leu Gly Gln His Leu Pro Thr Leu Ser Phe Pro Asp	135
406	CCC GGA CTC CGG CCC CAA AAC CTG TAC ACC CTC TGG GGA GGC TCC	450
136	Pro Gly Leu Arg Pro Gln Asn Leu Tyr Thr Leu Trp Gly Gly Ser	150
451	GTT GTC TGC ATG TAC CTC TAC CAG CTT TCC CCC CCC ATC ACC TGG	495
151	Val Val Cys Met Tyr Leu Tyr Gln Leu Ser Pro Pro Ile Thr Trp	165
496	CCC CTC CTG CCC CAC GTG ATT TTT TGC CAC CCC GGC CAG CTC GGG	540
166	Pro Leu Leu Pro His Val Ile Phe Cys His Pro Gly Gln Leu Gly	180
541	GCC TTC CTC ACC AAT GTT CCG TAC AAG CGA ATA GAA GAA CTC CTC	585
181	Ala Phe Leu Thr Asn Val Pro Tyr Lys Arg Ile Glu Glu Leu Leu	195
586	TAT AAA ATT TCC CTT ACC ACA GGG GCC CTA ATA ATT CTA CCC GAA	630
196	Tyr Lys Ile Ser Leu Thr Thr Gly Ala Leu Ile Ile Leu Pro Glu	210
631	GAC TGT TTG CCC ACC ACC CTT TTC CAG CCT GTT AGG GCA CCC GTC	675
211	Asp Cys Leu Pro Thr Thr Leu Phe Gln Pro Val Arg Ala Pro Val	225
676	ACG CTA ACA GCC TGG CAA AAC GGC CTC CTT CCG TTC CAC TCA ACC	720
226	Thr Leu Thr Ala Trp Gln Asn Gly Leu Leu Pro Phe His Ser Thr	240
721	CTC ACC ACT CCA GGC CTT ATT TGG ACA TTT ACC GAT GGC ACG CCT	765
241	Leu Thr Thr Pro Gly Leu Ile Trp Thr Phe Thr Asp Gly Thr Pro	255

FIG. 5

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766	ATG ATT TCC GGG CCC TGC CCT AAA GAT GGC CAG CCA TCT TTA GTA	810
256	Met Ile Ser Gly Pro Cys Pro Lys Asp Gly Gln Pro Ser Leu Val	270
811	CTA CAG TCC TCC TCC TTT ATA TTT CAC AAA TTT CAA ACC AAG GCC	855
271	Leu Gln Ser Ser Phe Ile Phe His Lys Phe Gln Thr Lys Ala	285
856	TAC CAC CCC TCA TTT CTA CTC TCA CAC GGC CTC ATA CAG TAC TCT	900
286	Tyr His Pro Ser Phe Leu Leu Ser His Gly Leu Ile Gln Tyr Ser	300
901	TCC TTT CAT AAT TTA CAT CTC CTG TTT GAA GAA TAC ACC AAC ATC	945
301	Ser Phe His Asn Leu His Leu Leu Phe Glu Glu Tyr Thr Asn Ile	315
946	CCC ATT TCT CTA CTT TTT AAC GAA AAA GAG GCA GAT GAC AAT GAC	990
316	Pro Ile Ser Leu Leu Phe Asn Glu Lys Glu Ala Asp Asp Asn Asp	330
991	CAT GAG CCC CAA ATA TCC CCC GGG GGC TTA GAG CCT CCC AGT GAA	1035
331	His Glu Pro Gln Ile Ser Pro Gly Gly Leu Glu Pro Pro Ser Glu	345
1036	AAA CAT TTC CGC GAA ACA GAA GTC TGA	1070
346	Lys His Phe Arg Glu Thr Glu Val TRM	354

FIG. 5 (Cont.)

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SEQUENCE LISTING -- HIV Promoter sequence (SEQ ID NO:7)

1 CTGGAAGGGC TAATTTGGTC CCAAAGAAGA CAAGAGATCC TTGATCTGTG GATCTACCAC
61 ACACAAGGCT ACTTCCCTGA TTGGCAGAAAT TACACACCAG GGCCAGGGAT CAGATATCCA
121 CTGACCTTTG GATGGTGCTT CAAGCTAGTA CCAGTTGAGC CAGAGAAGGT AGAAGAGGCC
181 AATGAAGGAG AGAACAAACAG CTTGTTACAC CCTATGAGCC TGCA'TGGGAT GGAGGACGCG
241 GAGAAAGAAG TGTTAGTGTG GAGGTTTGAC AGCAAACATAG CATTTCATCA CATGGCCCCGA
301 GAGCTGCATC CGGAGTACTA CAAAGACTGC TGACATCGAG CTTTCTACAA GGGACTTTCC
361 GCTGGGGACT TTCCAGGGAG GCGTGGCCTG GGCGGGACTG GGGAGTGGCG TCCCTCAGAT
421 GCTGCATATA AGCAGCTGCT TTTTGCCTGT ACTGGG

FIG. 6



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**SEQUENCE LISTING – HIV Tat nucleic acid (SEQ ID NO:8) and amino
acid (SEQ ID NO:9) of HIV Tat.**

1	ATG GAG CCA GTA GAT CCT AAT CTA GAG CCC TGG AAG CAT CCA GGA	45
1	Met Glu Pro Val Asp Pro Asn Leu Glu Pro Trp Lys His Pro Gly	15
46	AGT CAG CCT AGG ACT GCT TGT AAC AAT TGC TAT TGT AAA AAG TGT	90
16	Ser Gln Pro Arg Thr Ala Cys Asn Asn Cys Tyr Cys Lys Cys	30
91	TGC TTT CAT TGC TAC GCG TGT TTC ACA AGA AAA GGC TTA GGC ATC	135
31	Cys Phe His Cys Tyr Ala Cys Phe Thr Arg Lys Gly Leu Gly Ile	45
136	TCC TAT GGC AGG AAG AAG CGG AGA CAG CGA CGA AGA GCT CCT CAG	180
46	Ser Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Ala Pro Gln	60
181	GAC AGT CAG ACT CAT CAA GCT TCT CTA TCA AAG CAA CCC GCC TCC	225
61	Asp Ser Gln Thr His Gln Ala Ser Leu Ser Lys Gln Pro Ala Ser	75
226	CAG TCC CGA GGG GAC CCG ACA GGC CCG ACG GAA TCG AAG AAG AAG	270
76	Gln Ser Arg Gly Asp Pro Thr Gly Pro Thr Glu Ser Lys Lys Lys	90
271	GTG GAG AGA GAG ACA GAG ACA GAT CCG TTC GAT TAG	306
91	Val Glu Arg Glu Thr Glu Thr Asp Pro Phe Asp TRM	102

FIG. 7